DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1x.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-013563
Date Inspected: 29-Apr-2010

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 900
OSM Departure Time: 1130
Location: Job Site

CWI Name: As noted in Summary

Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**CWI Present:**	☑ Yes	☐ No	
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☐ Yes	☑ No	☐ N/A
				Approved WPS:	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: Orthotropic Box Girder

Summary of Items Observed:

This Quality Assurance Inspector (QAI), was present at the Self Anchored Suspension (SAS) job site. The following items were observed; see individual item numbers in the body of this report for further details.

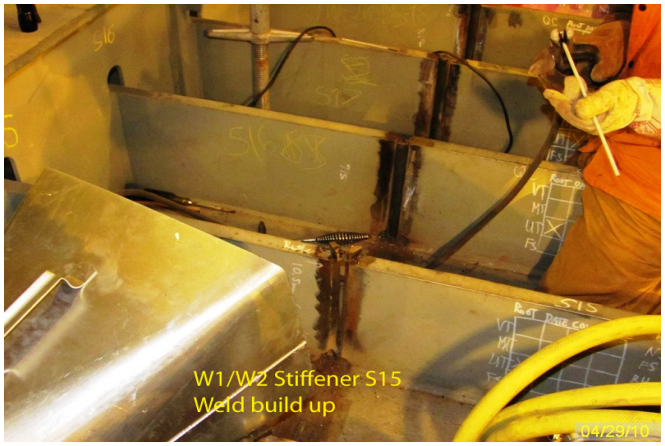
Field Splice 1W-2W
1, Side Plate E2, welding of side 1 in process.
2, Bottom Plate D, welding of S stiffeners in process.

1, The QAI observed the shielded metal arc welding (SMAW) of the complete joint penetration (CJP) groove weld of the transverse deck plate field splice 1W-2W-E2. The welding was performed at the first 500mm from the intersection with Plate bottom plate D by the welder Songtao Huang ID-3794 utilizing the Welding Procedure Specification ABF-WPS-D15-F1040B Rev. 1 in the flat (1G) position with 1/8” E7018 H4R low hydrogen electrodes. The welding was observed by Quality Control (QC) Inspector Tom Pasqualone. The minimum preheat temperature of 60 degrees Celsius and maximum interpass temperature of 230 degrees Celsius was verified by the QC. The SMAW average amperage of 120 DC at the welding lead was verified to be within the WPS parameter ranges of 90 to 160 DC amps by the QA inspector. The welding was completed and appears to be in general compliance with contract documents.

2, The QAI observed the shielded metal arc buildup welding (SMAW) of the complete joint penetration (CJP) groove weld of the transverse deck plate field splice 1W-2W-D stiffener S15. The welding was performed to reduce the joint root opening to meet minimum requirements at the temporary backing. The welding was

performed on one side of the weld joint by the welder Chun Fai Tsui, ID-3426 utilizing the Welding Procedure Specification ABF-WPS-D15-F1010 Rev. 1 in the vertical (3G) position with 1/8" E7018 H4R low hydrogen electrodes. The welding was observed by Quality Control (QC) Inspector Bernard Docena. The minimum preheat temperature of 100 degrees Celsius was verified by the QC inspector utilizing Tempilstik temperature indicators. The SMAW average amperage of 115 DC at the welding lead was verified to be within the WPS parameter ranges of 90 to 160 DC amps by the QA inspector. The welding was completed and appears to be in general compliance with contract document.

The QAI observed the gas shielded flux cored arc welding (FCAW-G) of the complete joint penetration (CJP) groove welds on the bottom plate 1W-2W-D, stiffener plates S4 and S5. The welding was performed by the welder James Zhen, ID 6001, utilizing the Welding Procedure Specification (WPS) ABF-WPS-D15-3011-3 Rev. 0 in the vertical up (3G) position. The welding was observed by Quality Control (QC) Inspectors Bernard Docina. The minimum preheat temperature of 100 degrees Celsius and maximum interpass temperature of 230 degrees Celsius was verified by the QA inspector utilizing Tempilstik temperature indicators. The fill pass by Mr. Zhen, average amperage of 253 DC, voltage of 23.2 DC and travel were verified to be within the WPS parameter range of 201 to 251 DC amps, 20.2 to 23.5 DC volts and travel speed of 108 to 260 millimeters per minute by QA inspector. On stiffeners S4 and S5, welding was completed on side 1 and appears to be in general compliance with contract documents.



Summary of Conversations:

General conversations with QC personnel regarding welding locations and schedule.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mohammad Fatemi, (916)813-3677, who represents the Office of Structural Materials for your project.

Inspected By:	Lanz,Joe	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer